

Relationship between Total Quality Management (TQM) and Academic Achievement (AA) Scores of the Students in Teacher Training Institutes in Villupuram District of Tamil Nadu

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Abstract: *The objective of the study was to find out the level of TQM and the level of Academic Achievement of the students in Government, Aided and Self-financed TTIs as well as to find out the Relationship between TQM score and the Academic Achievement score of the students studying in Government, Aided and Self-financed TTIs in Villupuram District. The present research comes under Survey Type. Random Sampling Technique was used to select samples. The total number of samples selected for the study was 198. Two types of Tools were used in the study. One was Students' TQM Tool developed by Prof. Marmar Mukhopathyay and the other tool was Researcher made Tool, namely Scholastic Achievement Test (SAT). Mean, Standard Deviation and Percentage were calculated for the students' Academic Achievement and TQM scores from different TTIs. Using 't' -test, significance of difference between the Mean scores of Academic Achievement and TQM scores of students in different TTIs were calculated. Correlation was used to find out the Relationship between TQM and the Academic Achievement of the students studying in Government, Aided and Self-financed TTIs. Findings showed that there is a significant positive relationship between the TQM score and the Academic Achievement Scores of the students who studied in Government, aided and Self-financed TTIs. This is due to the reason that the TQM of the Institute naturally influences the Academic Achievement level of the Students.*

1. Introduction

Total Quality Management (TQM) is defined as a quality-centered, customer-focused, fact-based, team-driven, senior-management-led process to achieve an organization's strategic imperative through continuous process improvement. TQM principles are also known as total quality improvement, world class quality, continuous quality improvement, total service quality, and total quality leadership. TQM has emerged as a major technique in improving and sustaining quality in Education. Another explanation for the three words in 'TQM' is like this: The word "total" in total Quality Management means that everyone in the organization must be involved in the continuous improvement effort, the word "quality" shows a concern for customer satisfaction, and the word "management" refers to the people and process needed to achieve the quality. Derived from the industrial applications, TQM has been extensively and intensively adapted and experimented in education all over the world.

Rationale for the study

TQM has been successfully experienced in both school and higher education. It is human intensive, compared to other cost intensive approaches; hence it eminently suits Indian education. The present investigation intends to measure the level of TQM in TTIs and the influence of TQM on the Academic Achievement level of the teacher trainees in these institutes as well as the Relationship between the TQM and the Academic Achievement of the Teacher Trainees. So the problem for the present study is stated as, "Relationship between total quality management (TQM) score and academic achievement score of students in teacher training institutes in villupuram district of Tamil Nadu".

2. Methodology

The present research comes under Survey Type, as the study deals with the process of finding level of TQM in different types of Teacher Training Institutes (TTIs), the level of Academic achievement of the students studying in these institutions. The Investigator is also interested in knowing the Relationship between TQM and Academic Achievement of the students in these institutes.

Objectives of the study

The Objectives of the study are:

- 1) To find out the level of TQM in Government, Aided and Self-financed TTIs in Villupuram District of Tamil Nadu.
- 2) To find out the level of Academic Achievement among the students in Government, Aided and Self-financed TTIs in Villupuram District of Tamil Nadu.
- 3) To find out the Relationship between TQM score and the Academic Achievement score of the students studying in Government, Aided and Self-financed TTIs in Villupuram District of Tamil Nadu.
- 4) To find out the Relationship between TQM score and the Academic Achievement score of the students studying in Government, Aided and Self-financed TTIs in Villupuram District with respect to Sex and Locality.

Sample of the study

The sample for the study was selected through Random Sampling Technique. From Government side, government TTI was selected. There is only one Aided TTI in Villupuram district. It was selected. In first phase, there are twelve fully recognized Self-financed TTIs established in Villupuram district. From these two TTIs were selected. The total number of samples (Students) selected for the study was 198 from the above 4 institutions. They are Fourty eight

students from government TTI, Fifty students from Aided TTIs and Hundred students from Self-financed TTIs.

Tools used in the study

Two types of Tools were used in the study. One was Students’ TQM Tool and the other was Researcher developed Tool, namely Scholastic Achievement Test (SAT).

(i) Students’ TQM TOOL: - The Tool was developed by Prof. Marmar Mukhopadhyay of NIEPA, New Delhi in the year 2001. This tool was developed with ten statements of ten sub-areas. The sub-areas are: School’ care on Students, School Rapport, Teachers’ care on Students, Principle’ care on Students, Teaching Quality, Evaluation Methods, Infrastructure Facilities, Co-Curricular Activities, School Discipline and Appreciation & Recognition. Student’s TQM tool was administered among the students of TTIs and used to elicit their perceptions about TQM in the institutes where they are studying.

(ii) SAT Tool: - SAT Tool was administered among the second year students of sample TTIs to find out their Academic Achievement levels in the second year D.T.Ed., Subjects (i.e) Tamil, English, Mathematics, Science and social Science. It consisted of 200 objective type items with four alternatives.

Statistical techniques used

Mean, Standard Deviation and Percentage were calculated for the students’ Academic Achievement and TQM scores from different TTIs. Using ‘t’ –test, significance of difference between the Mean scores of Academic Achievement and TQM scores of students in different TTIs were calculated. Correlation was used to find out the Relationship between TQM and the Academic Achievement of the students studying in Government, Aided and Self-financed TTIs.

3. Analysis of Data

Table 1: Significance of difference between the TQM scores of the students studying in government, aided & self-financed TTIs

S.No	Types of institutes	N	M	S.D	t-value	Remark
1.	Government TTI	48	86.3	2.23	7.527	Significant
	Aided TTI	50	82.1	1.87		
2.	Aided TTI	50	82.1	1.87	32.69	Significant
	Self –financed TTIs	100	63.95	3.0		
3.	Self-financed TTIs	100	63.95	3.0	39.93	Significant
	Government TTI	48	86.3	2.23		

It is inferred from the Table-1 that the ‘t’ values for the scores in TQM between Government and Aided; Aided and Self-financed’ and Self-financed and Government Teachers Training Institutes are 7.527, 32.69 and 38.93 respectively. As all the ‘t’ values are greater than the Table value, it is understood that there was significant difference of 0.05 level between the TQM scores among Government, Aided and Self-financed Teachers Training Institutes. Therefore it may be stated that Government, Aided and Self-financed TTIs have different level of TQM.

Table 2: Significance of difference between academic achievement of students studying in government, aided & self-financed TTIs

S.No	Types of institutes	N	M	S.D	t-value	Remark
1	Government TTI	48	160.51	5.4	14.074	Significant
	Aided TTI	50	145.57	12.3		
2.	Aided TTI	50	145.57	12.3	5.326	Significant
	Self –financed TTIs	100	138.64	15.38		
3.	Self-financed TTIs	100	160.81	5.4	24.26	Significant
	Government TTI	48	138.64	15.38		

It is observed from the Table-2 that there is significant difference on the Academic Achievement scores of the students studying in Government, Aided and Self-financed TTIs. The Observed ‘t’ values are 14.074, 5.326 and 24.262 respectively. This result indicates that the Academic Achievement scores of the Government, Aided and Self-financed TTIs students are not similar. It shows that Government, Aided and Self financed TTIs students differ in their Academic Achievement scores.

Table 3: Significance of relationship between the TQM score and the academic achievement score of the students who study in government, aided and self-financed TTIs.

S.No	Variable 1	Variable 2	N	r-value	Remark
1.	TQM score Elicit by the students	Academic Achievement Scores of the students	198	0.628	Significant

Table-3 reveals that the calculated r-value 0.628 is significant at 0.05 level. It is understood that there is Significant Positive Relationship between the TQM score and the Academic Achievement score of the students who study in Government, Aided and Self-financed TTIs.

Table 4: Significance of relationship between the TQM score and the academic achievement score of the students who study in government aided and self-financed TTIs with respect to sex.

S.No	Variable 1	Variable 2	N	r-value	Remark
1.	TQM score elicit by Male students	Academic Achievement Scores of Male students	98	0.612	Significant
2.	TQM score elicit by Female students	Academic Achievement score of Female students	100	0.644	Significant

It is revealed from the Table-4 that the calculated r-values 0.612 and 0.644 are significant at 0.05 level. It is understood that there is Significant Positive Relationship between the TQM score and the Academic Achievement score of the students who study in Government, Aided and Self-financed TTIs with respect to sex.

Table 5: Significance of relationship between the TQM score and the academic achievement score of the students who study in government, aided and self-financed TTIs with respect to locality

S.no	Variable 1	Variable 2	N	r-value	Remark
1.	TQM score elicit by Rural	Academic Achievement	166	0.678	Significant

	students	Scores of Rural students			
2.	TQM score elicited by Urban students	Academic Achievement Scores of Urban students	32	0.675	Significant

The Table-5 reveals that the calculated r-values 0.678 and 0.675 are significant at 0.05 level. It is understood that there is Significant Positive Relationship between the TQM score and the Academic Achievement score of the students who study in Government, Aided and Self-financed TTIs with respect to locality.

4. Findings of the Study

The findings based on the data analysis are enumerated below.

- 1) The level of TQM in Government, Aided and Self-financed TTIs are 86.3%, 82.1% and 63.95% respectively. Government TTI has higher TQM than Aided and Self-financed TTIs. Aided TTIs have higher TQM than self-financed TTIs. There is significant difference among the TQM scores of Government, Aided and Self-financed TTIs.
- 2) The level of Academic Achievement scores of the students' studying in Government, Aided and Self-financed TTIs is 80.40%, 72.77% and 69.32% respectively. Government TTI students scored more than Aided and Self-financed TTI students, whereas Aided TTI students scored more than Self-financed TTI students. There is significant difference among the Academic Achievement scores of Government, Aided and Self-financed TTI Students.
- 3) There is a Significant Positive Relationship between the TQM score and the Academic Achievement score of the students who study in Government, Aided and Self-financed TTIs.
- 4) Significant Positive Relationship is observed between the TQM score and the Academic Achievement Score of the students who study in Government, Aided and Self-financed TTIs with respect to Sex and Locality.

5. Discussion and Conclusion

The present study has attempted to find out the efficacy of TQM on Academic Achievement among Teacher Trainees in Villupuram District. It is interesting to note that there are significant difference in the level of TQM between Government, Aided and Self-financed TTIs. The result shows the High degree of TQM is in Government TTI. It is due to the reason that government TTI has Good Leadership, Quality Teaching, Material Resources, Links with various Departments and Nice Office Management. The next position of TQM is obtained by the Aided TTI. It is due to the reason that aided TTI also have Good Leadership, Material Resources and Nice Office Management. Self-financed TTIs have a very Low degree of TQM. It is due to the reason that TTIs have Minimum Qualified Principals & Staff, Inadequate Infrastructure and Office Management facilities.

The level of Academic Achievement among the students in different types of TTI were analysed by employing 't' test. Academic Achievement scores of the Government, Aided and Self-financed students are not similar. Government TTI students scored more marks than the Aided and Self-financed TTI students. This is due to the reason that government TTI has well qualified and Experienced Staff, Quality Teaching, Good Leadership and Links with many other Departments. Self-financed TTIs students scored lower marks than government TTI and Aided TTI students.

It is due to the reason that in most of the self-financed TTIs, minimum qualified Principals and Teacher Educators have been appointed and their experience also seems to be not much. Job security is also assured to a considerable degree in these types of TTI. Findings showed that there is a Significant Positive Relationship between the TQM score and the Academic Achievement Score of the students who study in Government, aided and Self-financed TTIs. This is due to the reason that the TQM of the Institute naturally influences the Academic Achievement level of the Students.

6. Educational Implications

The research reveals that TQM and Academic Achievement are Positively Correlated. If the TQM score of the Institute increases, the Academic Achievement Score of the Students in the institutes also increases. When the TQM Score of the institute is low, the Academic Achievement Score of the students of the institute is also low. This is due to the reason that the Organizational Climate of the Institute naturally influences the Academic Achievement level of the Students. Hence all Aided and self-financed TTIs may be encouraged to have a High Degree of TQM in their Institutes. The management authorities must take steps for improving the level of TQM in their Institutes. DIET has been established in every district for the qualitative improvement of Teacher Education. So DIETs may be empowered to inspect and give guidance for the quality improvement of Aided and Self-financed TTIs at the district level.

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